Amendments to the Claims:

Please cancel claim 79 without prejudice or disclaimer.

Please amend claims 67, 68 and 80 as follows:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

Claims 1 to 66. (cancelled)

67. (currently amended) A method of treating hypertension in a mammal in need of said treatment comprising administering an effective amount of a peptide comprising at least ~~nine~~ sixteen (16) contiguous amino acids residues selected from an amino acid sequence of a transmembrane domain of an alpha-1A adrenergic receptor selected from the group consisting of:

GVGVGVFLAAFILMAVAGNLLVILSV (SEQ ID NO: 23);
FIVNLAVADLLLSATVLPFSATMEVL (SEQ ID NO: 24);
DVWAAVDVLCCTASILSLCTISV (SEQ ID NO: 25);
AAILALLWVVALVVSVGPLLGWKEP (SEQ ID NO: 26);
AGYAVFSSVCSFYLPMAVIVVMYC (SEQ ID NO: 27);
LAIVVGVFVLCWFPFFFVLPLGSL (SEQ ID NO: 28); and
EGVFKVIFWLGYFNSCVNPLIYPCS (SEQ ID NO: 29).

68. (currently amended) A method of treating hypertension in a mammal in need of said treatment comprising administering an effective amount of a peptide comprising at least ~~nine~~ sixteen (16) contiguous amino acids selected from an amino acid sequence of a transmembrane domain of an alpha-1A adrenergic receptor selected from the group consisting of:

GVGVGVFLAAFILMAVAGNLLVILSV (SEQ ID NO: 23);
FIVNLAVADLLLSATVLPFSATMEVL (SEQ ID NO: 24);
DVWAAVDVLCCTASILSLCTISV (SEQ ID NO: 25);
AAILALLWVVALVVSVGPLLGWKEP (SEQ ID NO: 26);
AGYAVFSSVCSFYLPMAVIVVMYC (SEQ ID NO: 27);
LAIVVGVFVLCWFPFFFVLPLGSL (SEQ ID NO: 28); and
EGVFKVIFWLGYFNSCVNPLIYPCS (SEQ ID NO: 29),

wherein the peptide contains one or more conservative amino acid substitutions in the nine contiguous amino acids.

69. (previously presented) The method according to claim 67 or 68 wherein the peptide binds to a transmembrane domain of the alpha-1A adrenergic receptor.

70. (previously presented) The method according to claim 69 wherein the peptide inhibits the activity of the alpha-1A adrenergic receptor.

71. (previously presented) The method according to claim 70 wherein the inhibition of the activity of the alpha-1A adrenergic receptor induces vasodilation or inhibits vasoconstriction.

72. (previously presented) The method according to claim 67 or 68 wherein the peptide retains a helical confirmation.

73. (previously presented) The method according to claim 67 or 68 wherein the peptide comprises up to twenty-six amino acid residues.

74. (previously presented) The method according to claim 67 or 68 wherein one or more of the amino acid residues of the peptide contains a side chain modification.

75. (previously presented) The method according to claim 67 or 68 wherein one or more of the amino acid residues of the peptide is a non-natural amino acid.

76. (previously presented) The method of claim 67 or 68 wherein the peptide is altered to increase plasma half-life following administration.

77. (previously presented) The method of claim 76 wherein the peptide is conjugated to one or more water-soluble polymers.

78. (previously presented) The method of claim 76 wherein the peptide is incorporated into a polymeric matrix.

Claim 79 (cancelled).

80. (currently amended) The method according to claim 67 wherein the amino acid sequence of the peptide is selected from the group consisting of:

VFKVIFWLGYFNSCVN (SEQ ID NO: 31)[~~; and~~
~~VFKVIFWLGYFNS (SEQ ID NO: 32)~~].

81. (previously presented) The method according to claim 67 or 68 wherein the mammal is a human.

82. (previously presented) The method according to claim 67 or 68 where in the peptide is administered in combination with a pharmaceutically acceptable carrier.

83. (previously presented) The method according to claim 82 wherein the pharmaceutically acceptable carrier enhances stability of the peptide.

84. (previously presented) The method according to claim 82 wherein the pharmaceutically acceptable carrier enhances adsorption of the peptide.

85. (previously presented) The method according to claim 67 or 68 wherein the peptide is administered by a route selected from the group consisting of oral, nasal, buccal, intravenous, intramuscular, subcutaneous and transdermal.

86. (previously presented) A method of treating hypertension in a human in need of said treatment consisting essentially of administering an effective amount of a peptide comprising at least nine contiguous amino acids residues selected from an amino acid sequence of a transmembrane domain of an alpha-1A adrenergic receptor.